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Shared psychotic disorder – a case study of *folie à famille*

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Abstract. – BACKGROUND: *Folie à famille* is a rare form of shared psychotic disorder. It is defined as the transfer of delusions from one person to another.

CASE REPORT: This paper presents a case of shared psychotic disorder in two brothers, aged 16 and 17 and their mother who were admitted on the same day at the Clinic for psychiatry. The inducer was a mother, suffering from schizophrenia. She transferred her delusions to her sons. Both boys produced mostly the same paranoid delusions, that the others have been recording and monitoring them since their father died. After few days, the older boy, who had more severe psychotic symptoms, was treated with aripiprazole, while both received anxiolytics in low dosage.

RESULTS: We observed a withdrawal of psychotic psychopathology in both kids. Genetic burden, social isolation and strong emotional connection of family members are factors that have contributed to the development of shared psychotic disorder in this case.

CONCLUSIONS: The new approach of treatment for induced psychosis includes not only separation from the primary case, but also specific pharmacotherapy. It is necessary to think about this clinical entity, because this delusional disorder needs specific treatment, with better prognostic outcomes.

Key Words:
Folie à deux, Induced psychosis, Paranoid delusions, Psychopharmacotherapy.

Introduction

Induced psychoses belong to the group of delusional disorders with specific characteristics, although they are a rare psychiatric phenomenon. They occur in closely emotionally connected persons, most often family members. It is very important to separate persons who share this disorder within the treatment. This psychiatric phenomenon can also occur in a larger number of people when they belong to isolated groups. There are no controlled studies on induced psychosis because the involvement of multiple family members in the disease reduces the possibility of a critical family member initiating a visit to a psychiatrist. This disorder often goes undiagnosed because it involves persons who generally don't have insight into their mental illness. Therefore, it is not uncommon for people with induced psychosis to be discovered by accident, when seeking other medical care, in a lawsuit or by engaging the local community. We lack data on the real frequency of this disorder. Although the overall disorder is evenly distributed between male and female patients, sisters are more prone to shared psychotic disorders than other siblings[1].

In 1877, the term *folie à deux* was first introduced by Lasègue and Falret. In 1942, Gralnick announced four subtypes of this disorder: subtype A - *folie imposée*; subtype B - *folie simultanée*; subtype C - *folie communiquée*; and subtype D - *folie induite*[2,3].

The transfer of delusional ideas from one person to another is a characteristic of this disorder. The most common disorder in the primary patient is a psychotic disorder (e.g., schizophrenia), but other diagnoses such as delusional disorder or mood disorder with psychotic symptoms have also been described[4]. The affected individuals have an unconventionally close relationship. This could be an explanation of a high incidence of induced psychosis in twins (more often in sisters) due to shared biological factors[4-6].

Previously, clinicians noticed that induced delusions disappeared in a secondary after separation from the psychotic person. However, it proved insufficient by few authors in the analyzed

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studies. Usually, separation from the primary is followed by recovery of the secondary with the use of antipsychotic drugs[3,7,8].

In the current revision of DSM-5 (Diagnostic and Statistical Manual of Mental Disorders), induced psychosis is singled out as a separate entity, and it is included in the section "other specified schizophrenic spectrum and other psychotic disorders"[9]. International classification of diseases (ICD-11) classifies this illness as a delusional disorder instead of a separate category in ICD-10[10] (Table I).

Case Report

The case study is based on an insight into the medical records of family members during their treatment at the Clinic for psychiatry. Insight and analysis of reports of prescribing psychiatrists during their post-hospital treatment were performed for one year. Informed consent was obtained from the mother for this case study, at the time of her post-hospital treatment, when remission and critical insight into her own disorder was achieved. All information about family members is presented in a way that preserves their anonymity, in order to ensure the confidentiality of the information. The Ethics Commission of the Clinic for Psychiatry obtained the consent for the case study and publication of this manuscript.

Two brothers, aged 16 and 17, were admitted to the Department of Child and Adolescent Psychiatry on the same day as their mother, who was hospitalized at the Clinic for Adult psychiatry. They arrived in an ambulance car followed by a doctor and a specialized consultant social worker, who provided the information that the mother had sent a letter to the Governments with high and main authorities, in which she claimed that there were plenty of unknown people in her street, who followed and observed her, as well as recorded her communication with other people. She asked the protection from the High Government authorities on the basis of her basic human rights. The High government office sent a letter to the regional Center for social work to investigate what was really happening. Social worker, based on this letter, went to the school, where she found out that both boys were very good students until two-three months ago. Meanwhile, the older brother stopped going to school, while the younger one stopped learning. After that, the social worker visited the children's house. Firstly, the mother did not want to let her in, while later she changed her decision. The social worker saw the mother was sitting in the dark room, with heavy curtains on the windows. Older son's room was also in the heavy dark as well. He refused any sort of communication. The younger son spoke with her for a while and claimed that the unknown people were recording and monitoring him. Both boys produced mostly the same psychotic delusions, such as impressions that the others have recording and monitoring them since their father died (he committed suicide by hanging seven years ago). They made these conclusions because they felt that classmates were ironic and segregated them. Brothers had strong beliefs that they saw each of them often on the TV and that there were a lot of TV shows about them.

They believed that other kids could get under control of their behaviors, communicate their proper thoughts, and know exactly what they think at each moment. The only difference between the kids was that the younger boy still attended the school, while the older abandoned it (because of these psychotic delusions).

At the beginning, after their admission to the hospital, both produced psychotic psychopathologies, with paranoic delusions. The older one produced hallucinatory behavior. The PANSS score was 92 for older boy (Positive scale 16, Negative scale 16, General psychopathology scale 36). The older boy was treated with aripiprazole in a dose of 5 mg, both received anxiolytics in low dosage, and in both kids was a withdrawal of psychotic psychopathology. During the hospitalization, they did not have any communication with their mother.

Analyzing their genogram, a distinct hereditary psychiatric burden is visible. Their father suffered from paranoid psychosis, and he committed suicide, while his maternal aunt suffered from schizophrenic psychosis, and she tried to commit suicide. Her mother suffered from schizophrenic psychosis as well. The psychological tests showed that the older boy had a very vulnerable personality and the possibility to react with psychotic disorganization, with actual impaired impulse control. The psychological tests showed no subclinical psychopathology for the younger boy.

Both could not elaborate on their own psychotic delusions, and they made the distance from them. It was very notable that they were so ignorant because of hospitalization. After the therapeutic suggestions, they accepted the possibility that psychotic delusions were induced by their

Table I. Traditional and recent views on shared psychotic disorder[3,4,11].

Traditional Views	Recent Views
Females are more likely to be affected	Equal distribution between sexes
Younger individuals are more likely to be affected	Equal age distribution
Vulnerable relationships are between two sisters, spouses, mother and child, two brothers, brother and sister, pairs of friends, whole families	Equal incidence in married/common-law couples and siblings
Lower intelligence level in the secondary in comparison with the primary	No differences in the level of intelligence
Similar delusions between primary and secondary	Different delusions might be experienced
Separation from the primary is sufficient treatment	Separation from the primary is insufficient. Separation from the primary and antipsychotics administration are required

mother. They went home for a weekend with their grandmother, and everything went well. After a few days we contacted their mother with a strong support of our colleagues at the Clinic for Adult Psychiatry. She showed a good recovery at antipsychotic therapy. After a few weeks, all the family went home. They were monitored by regional Center for social work. Both boys returned to school and finished the year with excellent marks. They also referred us to relative familiar harmony. The older boy was treated with aripiprazole for one year and after that the pharmacotherapy was discontinued. After this period, we have no data on further psychiatric treatment and the course of the disease.

Discussion

Shared psychotic disorder is usually shared by two people, while very rarely involves three or more people (as in the case shown)[5,11-14]. A strong emotional connection between inducer and induced person(s) is observed, as well as the time alignment of the occurrence of symptoms and increased suggestibility of the induced patient[8].

The described case of induced disorder corresponds to type A, *folie imposée*. The primary person is the mother, and she imposes her delusions on her sons. According to the data from the literature, in the described case of a single-parent family, with two siblings in adolescence, it is also a more socially withdrawn family, with a weak social support network and more rigid borders towards a narrower social environment[15]. Family members are emotionally close to each other. The traumatic event of the loss of the father, who committed suicide seven years ago, affected the increase in the cohesion of family members and the orientation of the two brothers only to the mother in satisfying emotional needs. Also, the experience of shame in siblings due to the suicide of the father contributes to their increased social withdrawal, hypersensitivity, and anticipation of the hostile attitude by other people from the immediate social environment. The suggestive and dominant influence of the mother, as the only parent figure, who has been treated for paranoid schizophrenia for many years, culminates in children in a particularly sensitive adolescent phase of development, when uncritical adoption of the mother's delusional ideas occurs[16]. Very similar clinical picture was developed in both brothers. All family members have the experience of being monitored, observed, and persecuted by people in their social environment. The older brother was completely isolated from the social environment, by dropping out of school.

Genetic burden and the existence of a pre-existing psychotic disorder in inducers, in accordance with the data from the literature, proved to be important in this case as well[6,15]. The older brother was found to have an introverted, sensitive and vulnerable personality, predisposed to the possible development of psychotic disorders, which resulted in somewhat more diverse psychotic symptoms and complete social withdrawal compared to the younger brother, more extroverted in structure, and with no subclinical psychopathology continued to attend school and had no hallucinatory experiences. Due to the predisposition of the personality, the older brother is at risk of possible development of a psychotic disorder in the later stages of the life cycle.

The new approach to treatment for induced psychosis is the same as the treatment of other psychotic disorders[4,8]. The drugs of choice are atypical antipsychotics. Aripiprazole, olanzapine and quetiapine showed to be effective in these cases[3,17,18]. It should be borne in mind that the response to therapy may be related to genetics. As there is a transmission of the disorder among relatives, there may be a genet-

ic predisposition to respond to therapy, which some research confirms[19]. According to recent treatment guidelines for induced disorder, a combination of inducer separation and pharmacotherapy has been implemented in the treatment protocol of the brothers. The brothers were physically separated from their mother, after which there was an increase in criticism and insight into their own symptoms. The contact of the brothers with the mother was renewed only when there was a significant withdrawal of psychotic symptoms in the mother as well.

As family members continue to live together, monitoring by the regional Center for social work and reference health facilities is needed.

Conclusions

This case study points to the need to provide support to competent social and health institutions to families with a parent suffering from a psychotic disorder, especially in the case of their greater social isolation and weak social support network, in order to prevent and mitigate adverse risk factors[12,18,19]. There is no doubt about the importance of case studies of induced disorder, due to the need to form treatment guidelines, because empirical, controlled studies are lacking, given the rarity of the occurrence. Shared psychotic disorders are rather rare in clinical practice. It is necessary to think about this clinical entity, because this delusional disorder needs specific treatment, with a better course and outcome.

Authors' Contributions

Conceptualization and study design: SIK, VS; Literature review: All authors; Supervision: All authors; Definition of conclusions: SIK; Article writing (first draft): All authors; Criticism and review: SIK, VS; Article writing (definitive version): All authors.

Conflict of Interest

The authors declare that they have no conflict of interest to declare.

Data Availability Statement

All data generated or analyzed during this study are included in this published article.

Informed consent

Informed consent was obtained from the mother for this case study, at the time of her post-hospital treatment, when remission and critical insight into her own disorder was achieved. All information about family members is presented in a way that preserves their anonymity, in order to ensure the confidentiality of the information.

Ethics Approval

The Ethics Commission of the Clinic for Psychiatry obtained the consent for the case study and publication of this manuscript.

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